

## Claims:

1. A light analyzer apparatus for use with an ampoule, comprising:

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- a) a housing having a receptacle which receives the ampoule;
  - b) a light source which transmits light at a first intensity level into said receptacle;
  - c) a detector which detects at least some of said light transmitted into said receptacle; and
  - d) a control means for automatically determining when said light detected is at a predetermined percentage of said first intensity level of said light.

2. A light analyzer apparatus according to claim 1, wherein:

said housing includes a plurality of receptacles, each having a light source and a detector.

3. A light analyzer apparatus according to claim 1, further comprising:

e) means for heating said receptacle to a predetermined temperature.

4. A light analyzer apparatus according to claim 1, wherein:

said control means also includes a timer.

5. A light analyzer apparatus according to claim 1, wherein:

said control means also includes a memory provided with a look-up table relating a time required for performing a test on the ampoule in said apparatus and a biological activity in the ampoule at a start of the test.

6. A light analyzer apparatus according to claim 5, further comprising:

e) a display for indicating the biological activity in the ampoule at the start of the test.

7. A light analyzer apparatus according to claim 1, further comprising:

e) the ampoule, said ampoule containing a sample and a reagent which changes color when a predetermined level of biological activity is present in said sample.

8. A light analyzer apparatus according to claim 7, wherein:

said light source is selected to deliver a predetermined wavelength of light such that the color change of the reagent causes a reduction in the intensity level of the light transmitted through said sample.

9. A light analyzer apparatus according to claim 1, wherein:

said light source and said detector are located on opposite sides of said receptacle.

10. A light analyzer apparatus according to claim 9, wherein:

said light source and said detector are located on axially opposite sides of said receptacle.

11. A light analyzer apparatus according to claim 1, wherein:

said housing includes a cover movable between open and closed positions, and in said closed position said cover substantially completely shields said receptacle from ambient light.

12. A light analyzer apparatus according to claim 1, wherein:

said light source is at least one LED.

13. A light analyzer apparatus according to claim 12, wherein:

said light source is at least one green LED.

14. A light analyzer apparatus according to claim 1, wherein:

said green LED is adapted to emit light at approximately 565 nm.

15. A method of analyzing contents of an ampoule, the ampoule containing a sample and a reagent which changes color when a predetermined level of biological activity is present in the sample, said method comprising:

- a) recording a maximum intensity of light transmitted through said ampoule;
- b) identifying a first time;
- c) transmitting light at a predetermined wavelength through said ampoule;
- d) identifying an end time relative to said first time at which an intensity of said light transmitted at said predetermined wavelength through the ampoule is at a predetermined percentage of said maximum intensity of light; and
- e) automatically determining from said end time a level of biological activity present in the sample at said first time.

16. A method according to claim 15, wherein:

said recording includes transmitting light at said predetermining wavelength at regular intervals and identifying when said intensity of light transmitted through said ampoule stops increasing.

17. A method according to claim 15, wherein:

said predetermined wavelength is 565 nm.

18. A method according to claim 15, wherein:

said transmitting light transmits light axially through said ampoule.

19. A method according to claim 15, wherein:

said automatically determining includes referencing a look-up table in a memory.

20. A method according to claim 15, further comprising:

g) heating the ampoule to or near a target temperature.

21. A method according to claim 20, wherein:

said target temperature is approximately between 32 and 37 °C.

22. A method according to claim 20, wherein:

said first time is set when said ampoule is heated to or near said target temperature.

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